THE 26TH ICGCM PRELIMINARY TECHNICAL PROGRAM

Final acceptance of all the papers listed below is contingent upon review of final papers by the Steering Committee. Approximately 44 papers will be selected for presentation at the conference and all others will be presented in the poster sessions. Both presentation and poster papers will be included in the Proceedings.

ROOF BOLTING

1. Introduction of Long, High Capacity, Highly Tensioned, Post-Grouted Cable Bolts at BHP Billiton’s San Juan Mine, J. Pile and S. Bessinger, BHP Billiton, Waterflow, NM, M. Rataj, DSI Mining Division, NSW, Australia, and R. Walker, DSI Mining and Tunneling, Salt Lake City, UT.

2. Experimental and Numerical Study of Double Shearing of Bolt under Confinement, N. Aziz, University of Wollongong, NSW, Australia and H. Jalaifar, Kerman University, Iran.

3. Evaluation of Bore Hole Rifling Bolts at the San Juan Coal Mine, L. Giraldo, S. Cotten, and J. Farrand, Raytheon UTD, Springfield, VA and J. Pile, BHP Billiton, Waterflow, NM.

4. Fully Grouted, High Strength, Mechanical Shell Tensioned Bolt Improves Pittsburgh Seam Primary Support, D. Su, Consol Energy, Pittsburgh, PA and A. Campoli, Minova USA, Georgetown, KY.

5. An Engineered Hard Solution to the Problem of Gloving and Resin Unmixing and the Potential Strata Control Benefits that Might be Realised, R. Frith, Frith Consulting Services Pty. Ltd., NSW, Australia and M. Rataj, DSI Mining Division, NSW, Australia.


8. Cable Bolting with Low Air Power- A Solution, M. Leeming, Minova International Ltd., Crowle, Scunthorpe, UK.
9. Comparison Among the Conventional Fully-Grouted Bolt, Combination Bolt, and One-Step Bolt Using Numerical Modeling, A. Zingano, K. Morsy, and S. Peng, West Virginia University, Morgantown, WV.


MULTIPLE SEAM MINING

11. Ground Control for Multiple Seam Mining in German Coal Mines, H. Witthaus and K. Opolony, Deutsche Steinkohle AG, Herne, Germany.


17. Analysis of Multiple Seam Stability, C. Mark, F. Chase, and D. Pappas, NIOSH- Pittsburgh Research Laboratory, Pittsburgh, PA.


20. Influence of Bottom Seam Mined-Out Workings on Powered Supports during Extraction by Longwall Mining in Upper Seam, V. Sastry and R. Nair, National
Institute of Technology, Karnataka, Surathkal, Mangalore, India, and V. Ramaiah, 5 Incline Group of Mines, S.C.C.L., Kothagudem, Andhra Pradesh, India.

UNDERGROUND STONE AND HARD ROCK MINING


27. The Influence of Rock Mass Quality on Blast Damage, S. Singh, Laurentian University, Sudbury, Ontario, Canada.

SUBSIDENCE

28. German-Chinese Cooperation in the Field of Mining Subsidence Engineering, A. Preusse, RWTH Aachen University, Germany, A. Sroka, Freiberg University of Mining & Technology, Germany, Y. Jiang, Shandong University of Science & Technology, China, Q. Yao, Deutsche Steinkohle AG, Germany, and J. Kateloe, RWTH Aachen University, Germany.

29. Study about the Dynamic Influences of Longwall Mining in the US on Surface Objects, K. Zimmerman and R. Fritschen, DMT GmbH, Essen, Germany and A. Sroka, Freiberg University of Mining & Technology, Freiberg, Germany.

**LONGWALL FACE RECOVERY**


32. Evaluation of Support and Ground Response as Longwall Face Advances into and Widens Predriven Recovery Room, T. Barczak and S. Tadolini, NIOSH-Pittsburgh Research Laboratory, Pittsburgh, PA and P. Zhang, Foundation Coal Corp., Waynesburg, PA.

33. Longwall Shield Recovery Using Mobile Roof Supports, F. Chase, NIOSH - Pittsburgh Research Laboratory, Pittsburgh, PA, P. Worley, Peabody Energy, Wharton, WV and A. McComas, Mobile Mining Supports, Inc., Peach Creek, WV.

**CAVING MECHANICS**

34. Moranbah North Tests the Critical Caving Theories. Every Geotech Engineer's Dream, the Ability to Get More than Two Points on a Curve, C. Strawson, Anglo Coal, Australia and A. Moodie, Moranbah North Coal, Moranbah, QLD, Australia.


**COAL PILLARS**


38. The Unpredictable Life Cycle of a Coal Pillar, S. Tadolini, NIOSH- Pittsburgh Research Laboratory, Pittsburgh, PA and P. Zhang, Foundation Coal Corp., Waynesburg, PA.
39. Relationship between Mining Subsidence and Mining Depth in Strip Pillar Mining, W. Guo, Henan Polytechnic University, Jiaozuo, China and K. Morsy and S. Peng, West Virginia University, Morgantown, WV.

40. Modeling Post-Peak Coal Pillar Mechanics Using PFC3D, K. Free, Idaho State University, Pocatello, ID.

41. Extraction of Hard Coal Close to a Shaft, P. Fischer, Deutsche Steinkohle AG, Herne, Germany.

**ROOF AND RIB SUPPORT DESIGNS**


44. Gateroad Roof Support Model (GRSM), B. Lawrence, Geowork Engineering Pty. Ltd., Emerald, QLD, Australia.


47. Stability Mapping as a Tool for Production Planning at Bowie No. 3 Mine, C. Stewart and R. Stone, Bowie Resources, LLC., Paonia, CO.


**LONGWALL TOP COAL CAVING**

50. Geological and Geotechnical Influences on the Cavability and Drawability of Top Coal in Longwall Top Coal Caving Mining, P. Humphries and B. Poulsen, CSIRO, Brisbane, Australia.


ROCK MECHANICS

52. On Rock Failure Criteria for Coal Measure Rocks, M. Gadde, J. Rusnak, and J. Honse, Peabody Energy, St. Louis, MO and S. Peng, West Virginia University, Morgantown, WV. 53. Effects of Specimen Age on the Uniaxial Compressive Strength of Coal Measure Rocks, T. Barton, S. Bhatt, and G. Molinda, NIOSH Pittsburgh Research Laboratory, Pittsburgh, PA.

HIGHWALL MINING


55. A Practical Solution to Highwall Mining Coal Reserves Sterilized by Auger Mining, D. Bundy, Grizzly Mining, LLC., Summersville, WV and M. Amick, Engineering Consulting Services, LLC, Lexington, KY.

MINING GEOPHYSICS

56. Development of Physical Model to Evaluate the Radio Imaging Method (RIM), W. Monaghan, NIOSH-Pittsburgh Research Laboratory, Pittsburgh, PA, J. Lu, Y. Luo, and S. Peng, West Virginia University, Morgantown, WV.

57. Time-Lapse Tomography of a Longwall Panel: A Comparison of Inversion Schemes, K. Luxbacher and E. Westman, Virginia Polytechnic Institute & State University, Blacksburg, VA and P. Swanson, NIOSHSpokane Research Laboratory, Spokane, WA.

GEOLOGY AND GROUND CONTROL

58. Fletcher Information Display, R. Anderson, J.H. Fletcher & Co., Huntington, WV.
59. Integrating CMRR with Stability Mapping, K. Heasley and M. Petrovich, West Virginia University, Morgantown, WV.

60. Faceguard - A Tool for Understanding Your Ground Conditions in Real Time, S. Miller, Optimate, Mudgeeraba, QLD, Australia.


63. Coal and Gas Outbursts in a Coal Mine Shaft Development: A Case Study, M. Liu and H. Mitri, McGill University, Montreal, Canada.